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| 10/042,552      | 01/09/2002  | Donald W. Boyd       | 1652A1              | 5468             |

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EXAMINER

MAYEKAR, KISHOR

ART UNIT

PAPER NUMBER

1753

DATE MAILED: 06/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/042,552

Applicant(s)

BOYD ET AL.

Examiner

Kishor Mayekar

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-37 is/are allowed.
- 6) ☒ Claim(s) 1-15, 38-47, 49-57, 59, 62 and 63 is/are rejected.
- 7) ☒ Claim(s) 16-21, 48, 58, 60 and 61 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 49-51 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 49, the claim is indefinite for reciting a coating composition and a rinsing composition as part of the structure of the device system.

In claim 52, the phrase "in a steps of" is confusing or incomplete.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-14 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over IKEGUCHI et al. (4,220,858). The reference's invention is directed to an apparatus for detecting change in water quality and a method thereof. The reference discloses the step of "introducing sample water into a water bath in which aquatic live, and detecting a change in water quality by a concentration of carbon dioxide generated by respiratory action of the aquatics in the water bath" (col. 2, lines 7-11), wherein the aquatics are microorganisms (paragraph crossing cols. 7 and 8). The difference between the reference and claim 1 is the liquid is part of a coating process. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings because the selection of any of known equivalent liquid for the detection of change in liquid quality would have been within the level of ordinary skill in the art.

5. Claims 1-15, 52, 53, 55-57, 59, 62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 732588 A2. The reference's invention is directed to a method of determining the degradation of carbonaceous materials and the nitrification in biological system, especially in biological waste water purification system. The references discloses in the abstract that the method comprises the steps of measuring the concentration of carbon dioxide in the gas on the surface of the biological system and that in the system. The difference between the reference and the above claims is the liquid is part of a coating process. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings because the selection of any of known equivalent liquids for the detection of change in liquid quality would have been within the level of ordinary skill in the art.

6. Claims 38-47, 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of EP '588 or IKEGUCHI in view of applicant's admission. The further difference between the reference as applied above and the above claims is the use in a coating system. Applicant admits that an electrodeposition

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coating system comprising a coating tank and a rinse tank is known (see pages 1 and 2 of the specification). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings as admitted by Applicant because the selection for use in any equivalent system for detecting of change in liquid quality would have been within the level of ordinary skill in the art.

***Allowable Subject Matter***

7. Claims 22-37 are allowed.

1. The following is a statement of reasons for the indication of allowable subject matter: Because the prior art references do not disclose in a method of detecting and controlling a level of biological contaminant in a continuous coating process comprising a liquid the recited step of adding in combination with other recited steps as claimed in claims 22-37.

2. Claims 16-21, 48, 58, 60 and 61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Claims 51 and 54 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: Because the prior art references do not disclose

1) in a method of detecting biological contaminant in a liquid the further recited step of adding in combination with other recited steps as claimed in claims 16-21 and 54;

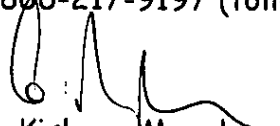
2) in a coating system the recited provision of at least one biocide addition device as claimed in claims 48 and 51; and

3) in a method of determining biological contaminant in a liquid the further recited step of adding in combination with other recited steps as claimed in claims 58, 60 and 61.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kishor Mayekar  
Primary Examiner  
Art Unit 1753